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TRANSMITTAL OF RESPONSES TO THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (U.S. EPA) AND OHIO ENVIRONMENTAL PROTECTION AGENCY (OHIO EPA) COMMENTS ON THE

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LETTER
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Department of Energy
Fernald Environmental Management Project
P.O. Box 398705
Cincinnati, Ohio 45239-8705
(513) 738-6357

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AUG 1 2 1992
DOE-2246-92

Mr. James A. Saric, Remedial Project Director
U.S. Environmental Protection Agency
Region V - 5HR-12
230 South Dearborn Street
Chicago, Illinois 60604

Mr. Graham E. Mitchell, Project Manager
Ohio Environmental Protection Agency
40 South Main Street
Dayton, Ohio 45402

Dear Mr. Saric and Mr. Mitchell:

TRANSMITTAL OF RESPONSES TO THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (U.S. EPA) AND OHIO ENVIRONMENTAL PROTECTION AGENCY (OHIO EPA) COMMENTS ON THE CONDITIONALLY APPROVED PART 5 WORK PLAN, AND TRANSMITTAL OF REVISED SOIL VAPOR PROCEDURE AND REVISED PART 5 WORK PLAN

References:

1. Letter, J. A. Saric to J. R. Craig, "Revised Part 5 Work Plan and Transmittal of Revised Hydropunch Procedures," dated March 20, 1992

2. Letter, G. E. Mitchell to J. R. Craig, "DOE's Response to Comments for Conditionally Approved Part 5 Work Plan," dated February 20, 1992

3. Letter DOE-816-92, J. R. Craig to J. A. Saric and G. E. Mitchell, "Response to U.S. EPA and Ohio EPA Comments for the Conditionally Approved Part 5 Work Plan and Transmittal of Revised Hydropunch Procedures," dated February 4, 1992

This letter transmits the Department of Energy's (DOE) responses to the U.S. EPA and Ohio EPA comments (References 1 and 2) on the Conditionally Approved Work Plan for Part 5. The responses to these comments are included in Enclosures 1 and 2 to this letter. This letter also transmits the revised Part 5 Work Plan (Enclosure 3) and the revised Soil Vapor procedure (Enclosure 4).

The dynamics of the situation to the South Plume area require further modification to the Work Plan. Since delays in obtaining access to the CSX property were jeopardizing the access agreements already obtained for other

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properties, DOE and the U.S. EPA mutually decided to proceed in parallel with the two traverse lines of hydropunching as originally planned rather than completing them in phases as proposed in Reference 3. A revised Part 5 Work Plan (Enclosure 3) has been prepared which:

- addresses deletion of the monitoring wells proposed for installation on Delta Steel property and provides an alternative arrangement for obtaining this information;
- adds a traverse line of hydropunching between the original lines of hydropunching and the well field to provide information in the event that the 20 ppb isopleth is north of the two lines of hydropunching;
- adds continuous core sampling for the purpose of determining the homogeneity of the aquifer;
- provides for gamma ray logging to be run in completed boreholes for the purpose of making stratigraphic correlations and calculating permeabilities of the aquifer;
- provides additional information for evaluating the vertical depth of the proposed extraction wells for Part 2 of the South Plume Removal Action;
- provides a schedule for performing the work for Part 5; and
- explains that DOE will not proceed with the soil vapor survey at this time.

If you or your staff have any questions, please contact me at (513) 738-6159 or C. J. Fermaintt at (513) 738-6157.

Sincerely,

R Warren
For

Jack R. Craig
Fernald Remedial Action
Project Manager

FN:Fermaintt

Enclosures: As Stated

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cc w/enc.:

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K. A. Hayes, EM-424, TREV
L. Jenson, USEPA-V, AT-18J
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J. P. Hopper, WEMCO
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J. E. Razor, ASI/IT
AR Coordinator, WEMCO

[redacted] Enclosure 1

RESPONSE TO U.S. EPA COMMENTS ON THE U.S. DEPARTMENT OF ENERGY'S CONDITIONALLY APPROVED PART 5 WORK PLAN

Comment 1: Original Comment 1: The response to U. S. EPA Comment 1 states that DOE will provide a Document Change Request (DCR) to address U.S. EPA's comments. This response can only be evaluated after U.S. EPA review of the DCR.

Response: The DCR for the soil gas sampling procedure is provided as Enclosure 4 to the transmittal letter.

Action: As noted in the response.

Comment 2: Original Comment 2: The response to U.S. EPA Comment 2 states that a rinse and wipe decontamination procedure is sufficient to adequately decontaminate the soil gas probe. The DCR describing this procedure was not presented to U.S. EPA for review; thus, U.S. EPA cannot comment on the procedure. U.S. EPA notes that proper decontamination is necessary to prevent possible false positive results when the soil gas survey is implemented. Because high pressure steam cleaning will volatilize the target organic contaminants, it is the preferred method of decontamination and should be used.

Response: DOE concurs with U.S. EPA comment and will revise the Soil Vapor Sampling procedure to incorporate the comment.

Action: As noted in response.

Comment 3: Original Comment 3: The revised procedure for collecting groundwater samples with the hydropunch sampler is adequate; however, the procedure indicates that groundwater samples will be collected from only one depth-discrete zone per location. This is different from the original sampling approach, under which multiple depth-discrete zones were to be sampled at each location. DOE should provide additional information on the rationale for changing the sampling approach.

Response: Enclosure 2 of the February 4, 1992 transmittal letter of DOE responses to U.S. EPA comments was the *Groundwater Sampling Procedures for Using Hydropunch II [Document Change Request (DCR) 68A, dated 1/31/92]*. This enclosure was a description of procedures to be followed when using the Hydropunch II for the Fernald characterization program. The procedural document is not intended to provide sampling depths for use with the Hydropunch II. The project specific work plan dictates the depths at which samples are to be collected. The project specific work plan states that the Hydropunch II will be used according to the

Enclosure 1

RESPONSE TO U.S. EPA COMMENTS ON THE U.S. DEPARTMENT OF ENERGY'S CONDITIONALLY APPROVED PART 5 WORK PLAN

procedures outlined in DCR 68A.

Action: The section referencing sample depths will be deleted from the Sampling Procedures for Using Hydropunch II.

Comment 4: Original Comment 4: DOE states that permanent monitoring wells on the Delta Steel property are needed to confirm that the interim advanced wastewater treatment (IAWWT) design is adequate. DOE also states that, because it cannot obtain access to the Delta Steel property to install these wells, their usefulness is now questionable. It does not seem that by omitting these wells DOE has solved the problem of obtaining data vital to the successful design of the removal action. Although Delta Steel will not provide access to permanent wells, DOE could obtain the necessary data by collecting groundwater samples using the hydropunch method or temporary wells.

Response: Since Delta Steel has not granted permission for DOE to install monitoring wells on its property, alternate locations have been determined. The data to be collected from these wells are still considered necessary for evaluating the depth of the extraction wells and adequacy of the IAWWT operating parameters (resin loading rate, resin replacement frequency, etc.). The locations of these replacement monitoring wells are presented in the revised Part 5 Work Plan (Enclosure 3 of this transmittal letter).

Action: As noted in response.

Comment 5: Original Comment 5: DOE states that the recovery well field has "now been moved significantly farther north..." This new location should be clearly identified for evaluation.

Response: The new location of the well field is the one discussed previously with U.S. EPA and agreed to in the *Explanation of Significant Differences Document* (ESD), which has been issued. The *South Plume Removal Action Groundwater Modeling Report* (DOE April 1992) has been prepared to document the evaluation of the new location for the well field. In the original draft of the Part 5 Work Plan, the location proposed for the well field was envisioned to be located just north of the existing buildings along New Haven Road and at the eastern end of the traverse lines of hydropunching. However, the location of the well field was moved significantly north of the originally proposed location, and the new location and the reasons for the change are presented in the ESD document.

RESPONSE TO U.S. EPA COMMENTS ON THE U.S. DEPARTMENT OF ENERGY'S CONDITIONALLY APPROVED PART 5 WORK PLAN

Action: As noted in response.

Comment 6: Original Comment 6: The proposed modifications in this enclosure appear justified, however, the location of the well field should be clearly identified.

Response: See response to Comment 5.

Action: As noted in response to Comment 5.

Enclosure 2

RESPONSE TO OHIO EPA COMMENTS ON THE
U.S. DEPARTMENT OF ENERGY'S
CONDITIONALLY APPROVED PART 5 WORK PLAN

Comment 1: Original Comment 5: This response and sections 19-22 of the Groundwater Report only discuss how values were changed without providing a justification based on geological analysis.

Response: The selection of a single retardation factor of 12 for the SWIFT III Solute Transport Model is based on site-specific geochemical work, modeling work, and best professional judgement.

An in-depth discussion of why 12 was selected is presented in the DOE response to Ohio EPA comment #13 on the U.S. DOE's *South Plume Removal Action Groundwater Modeling Report*, which is being sent under a separate transmittal letter.

Action: None required.

Comment 2: Enclosure 3: Ohio EPA requests a copy of procedures used for future pump tests.

Response: A pump test well plan for the South Plume area has been prepared as Appendix A of the *South Plume Groundwater Recovery System Design Monitoring and Evaluation Program Plan* (previously titled the *Part 2 O&M Manual*), and was recently transmitted under separate cover for U.S. EPA and Ohio EPA review and comment. At this time, no future well tests have been scheduled. In the event that other tests are required, it is envisioned that a similar test procedure would be used.

Action: As noted in response.

Comment 3: Enclosure 4 contains significant changes to the previously conditionally approved work plan. DOE needs to submit a revised work plan detailing the proposed changes listed in Enclosure 4. DOE must keep in mind, while revising the work plan, that one of the primary objectives of Part 5 was to define the southern extent of the 20 ug/L uranium isopleth and evaluate how this contamination might be captured in light of additional contaminants within the aquifer.

Response: DOE has determined that, due to time constraints caused by scheduling delays associated with access to the study area, both the northern and southern lines of hydropunching will be installed concurrently and not in phases as presented in Enclosure 4. DOE will perform the hydropunching consistent with the previously approved hydropunching work plan. In addition, because DOE now

RESPONSE TO OHIO EPA COMMENTS ON THE
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believes the 20 µg/L isopleth could be north of the two lines of hydropunching, an additional line of hydropunching has been added between the north row of hydropunching and the recovery well field. A revised Part 5 Work Plan is provided as Enclosure 3 to this transmittal letter to address this change and the other changes previously discussed in Enclosure 4. DOE will evaluate the data collected from the hydropunching to determine the approximate location of the 20 µg/L isopleth.

Action: As noted in response.